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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/685,144	10/14/2003	Su-Hsuan Huang	POU920030145US1	4771

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EXAMINER
PATEL, JAY P

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	**Application No.** 10/685,144	**Applicant(s)** HUANG ET AL.	
	Examiner JAY P. PATEL	**Art Unit** 2619	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *02 April 2008*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-6,9-14 and 17-20* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-6,9-14 and 17-20* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *14 October 2003* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claims 1-20 are rejected under 35 U.S.C. 102(e) as being anticipated by Lebizay et al. (US Patent 7072352 B2).

3. In regards to claim 1, Libizay teaches in figure 8, a process to check the sequence numbers of arrived packets at a destination node (a method of managing message arrival at a receiver of a communications environment).

In further regards, at step 810, a sequence checking process examines the newly arrived packet to determine if the packet has an expected sequence number (ESN) (determining whether a message received by the receiver is next in sequence order from a sender, said determining using a sequence number of the message) (see column 7, lines 19-26).

At step 840, if the receive packet does not have the expected sequence number, it is out of sequence and if there are less than X packets in the SNSUT, the sequence checking process places the packets in the SNSUT (linking the message to an early arrival data structure and an out of order data structure, and placing the message in an unmatched messages buffer, in response to the message not being in sequence order).

At step 820, if the received packet has the ESN (indication that the message is in sequence order), the sequence number is stripped from the packet and sent on the intended output queue and then the ESN for the source node is updated. Then a source node specific traffic buffer is emptied. Therefore, since the sequence numbers are checked, updated and packets emptied from the buffer based on the source node, it is inherent that the arriving packet is checked for the source node (which anticipates attempting to match the message with a posted receive in a posted receive data structure at the receiver (where the source node reads the posted receive)). Furthermore, the ESN is stripped and the packet is sent to the intended output queue and updates the ESN for that source node and attempts to empty the SNSUT (a matching posted receive indicating that the receiver is ready to process the message)

At step 850, there are more than X or greater packets in the SNSUT, the sequence-checking process places the packet in the SNSUT (linking the message to an early arrival data structure, in response to a failed attempt to match the message with a posted receive).

In regards to claim 2, at step 820, if the received packet has the ESN, the sequence number is stripped from the packet and sent on the intended output queue and then the ESN for the source node is updated. Then a source node specific traffic buffer is emptied. Therefore, since the sequence numbers are checked, updated and packets emptied from the buffer based on the source node, it is inherent that the arriving packet is checked for the source node (thus anticipating comparing one or more attributes of the message with one or more attributes of an entry of a posted receive data structure).

In regards to claim 3, the sequence checking process empties the source-node-specific-unmanaged-buffer at step 820 and updates the ESN for that source node (processing the message, in response to a match between the message and the posted receive, and removing the matching posted receive form the posted receive data structure and deleting the matched posted receive).

In regards to claim 4, at step 830, if a packet with the updated ESN is found (determining whether an earlier message that was previously out of sequence is now in sequence), it is removed from the source specific buffer, the sequence number is removed, and it is sent on to the intended output queue and the ESN is again updated (performing one or more tasks associated with the earlier message, in response to the determining indicating that the earlier message is now in sequence) and the process repeats.

In regards to claims 5 and 6, at step 820, if the received packet has the ESN, the sequence number is stripped from the packet and sent on the intended output queue and then the ESN for the source node is updated. Then a source node specific traffic buffer is emptied. Therefore, since the sequence numbers are checked, updated and packets emptied from the buffer based on the source node, it is inherent that the arriving packet is checked for the source node.

4. In regards to claim 9, Libizay teaches in figure 8, a process to check the sequence numbers of arrived packets at a destination node (a system of managing message arrival at a receiver of a communications environment).

In further regards, at step 810, a sequence checking process examines the newly arrived packet to determine if the packet has an expected sequence number (ESN) (means for determining whether a message received by the receiver is in sequence order, said determining using a sequence number of the message) (see column 7, lines 19-26).

At step 840, if the receive packet does not have the expected sequence number, it is out of sequence and if there are less than X packets in the SNSUT, the sequence checking process places the packets in the SNSUT (linking the message to an early arrival data structure and an out of order data structure, and placing the message in an unmatched messages buffer, in response to the message not being in sequence order).

At step 820, if the received packet has the ESN (indication that the message is in sequence order), the sequence number is stripped from the packet and sent on the intended output queue and then the ESN for the source node is updated. Then a source node specific traffic buffer is emptied. Therefore, since the sequence numbers are checked, updated and packets emptied from the buffer based on the source node, it is inherent that the arriving packet is checked for the source node (which anticipates attempting to match the message with a posted receive in a posted receive data structure at the receiver (where the source node reads the posted receive)). Furthermore, the ESN is stripped and the packet is sent to the intended output queue and updates the ESN for that source node and attempts to empty the SNSUT (a matching posted receive indicating that the receiver is ready to process the message)

At step 850, there are more than X or greater packets in the SNSUT, the sequence-checking process places the packet in the SNSUT (linking the message to an early arrival data structure, in response to a failed attempt to match the message with a posted receive).

In regards to claim 10, at step 820, if the received packet has the ESN, the sequence number is stripped from the packet and sent on the intended output queue and then the ESN for the source node is updated. Then a source node specific traffic buffer is emptied. Therefore, since the sequence numbers are checked, updated and packets emptied from the buffer based on the source node, it is inherent that the arriving packet is checked for the source node (thus anticipating means for comparing one or more attributes of the message with one or more attributes of an entry of a posted receive data structure).

In regards to claim 11, the sequence checking process empties the source-node-specific-unmanaged-buffer at step 820 and updates the ESN for that source node (processing the message, in response to a match between the message and the posted receive, and removing the matching posted receive form the posted receive data structure and deleting the matched posted receive).

In regards to claim 12, at step 830, if a packet with the updated ESN is found (means for determining whether an earlier message that was previously out of sequence is now in sequence), it is removed from the source specific buffer, the sequence number is removed, and it is sent on to the intended output queue and the ESN is again updated (means for performing one or more tasks associated with the earlier message, in response to the determining indicating that the earlier message is now in sequence) and the process repeats.

In regards to claims 13 and 14, at step 820, if the received packet has the ESN, the sequence number is stripped from the packet and sent on the intended output queue and then the ESN for the source node is updated. Then a source node specific traffic buffer is emptied. Therefore, since the sequence numbers are checked, updated and packets emptied from the buffer based on the source node, it is inherent that the arriving packet is checked for the source node.

5. In regards to claim 17, Libizay teaches in figure 8, a process to check the sequence numbers of arrived packets at a destination node

In further regards, at step 810, a sequence checking process examines the newly arrived packet to determine if the packet has an expected sequence number (ESN) (determine logic to determine whether a message received by the receiver is in sequence order, said determining using a sequence number of the message) (see column 7, lines 19-26).

At step 840, if the receive packet does not have the expected sequence number, it is out of sequence and if there are less than X packets in the SNSUT, the sequence checking process places the packets in the SNSUT (linking the message to an early arrival data structure and an out of order data structure, and placing the message in an unmatched messages buffer, in response to the message not being in sequence order).

At step 820, if the received packet has the ESN (indication that the message is in sequence order), the sequence number is stripped from the packet and sent on the intended output queue and then the ESN for the source node is updated. Then a source node specific traffic buffer is emptied. Therefore, since the sequence numbers are checked, updated and packets emptied from the buffer based on the source node, it is inherent that the arriving packet is checked for the source node (which anticipates attempting to match the message with a posted receive in a posted receive data structure at the receiver (where the source node reads the posted receive)). Furthermore, the ESN is stripped and the packet is sent to the intended output queue and updates the ESN for that source node and attempts to empty the SNSUT (a matching posted receive indicating that the receiver is ready to process the message)

At step 850, there are more than X or greater packets in the SNSUT, the sequence-checking process places the packet in the SNSUT (linking the message to an early arrival data structure, in response to a failed attempt to match the message with a posted receive).

In regards to claim 18, the sequence checking process empties the source-node-specific-unmanaged-buffer at step 820 and updates the ESN for that source node (processing the message, in response to a match between the message and the posted receive, and removing the matching posted receive form the posted receive data structure and deleting the matched posted receive).

In further regards to claim 18, at step 830, if a packet with the updated ESN is found (determine logic to determine whether an earlier message that was previously out of sequence is now in sequence), it is removed from the source specific buffer, the sequence number is removed, and it is sent on to the intended output queue and the ESN is again updated (perform logic to perform one or more tasks associated with the earlier message, in response to the determining indicating that the earlier message is now in sequence) and the process repeats.

In regards to claim 19, at step 820, if the received packet has the ESN, the sequence number is stripped from the packet and sent on the intended output queue and then the ESN for the source node is updated. Then a source node specific traffic buffer is emptied. Therefore, since the sequence numbers are checked, updated and packets emptied from the buffer based on the source node, it is inherent that the arriving packet is checked for the source node.

In regards to claim 20, if the receive packet does not have the ESN, it is stored in the buffer and steps 840 and 850.

Response to Arguments

6. Applicant's arguments filed 04/02/2008 have been fully considered but they are not persuasive.

7. The applicant has argued that the 3rd and 4th limitation of the amended claim 1 are not taught by Lebizay. However, the examiner disagrees.

8. The applicant particularly states that the message must match a posted receive in a posted receive data structure at the receiver. The examiner maintains that

checking for an expected sequence number (ESN) is equivalent to attempting to match a posted receive and placing the message in a SNSUT is equivalent to a pasted receive data structure at the receiver.

Futhermore, Lebizay also reads on linking the message to an early arrival data structure, in response to a failed attempt to match the message with a posted receive. For example, at step 850, there are more than X or greater packets in the SNSUT, the sequence-checking process places the packet in the SNSUT.

Conclusion

9. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to JAY P. PATEL whose telephone number is (571)272-3086. The examiner can normally be reached on M-F 9:00 am - 5:00 p.m..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Edan Orgad can be reached on (571) 272-7884. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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Examiner
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/J. P. P./
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/Hassan Kizou/

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